

Having therefore shewn the reason of the motion of any float towards the sides, the reason of the incurfion of any two floating bodies will easily appear: For the rising of the water against the sides of either of them, is an Argument sufficient, to shew the pressure of the Air to be there less, then it is further from it, where it is not so much elevated; and therefore the reason of the motion of the other toward it, will be the same as towards the side of the Glas; only here from the same reason, they are mutually moved toward each other, whereas the side of the Glas in the former remains fixt. If also you gently fill the Jar so full with water, that the water is *protuberant* above the sides, the same piece of Cork that before did hasten towards the sides, does now fly from it as fast towards the middle of the Superficies; the reason of which will be found no other then this, that the pressure of the Air is stronger against the sides of the Superficies G and H, then against the middle I; for since, as I shewed before, the Principle of congruity would make the terminating Surface Spherical, and that the flattening of the Surface in the middle is from the abatement of the waters pressure outwards, by the contrary endeavour of its gravity; it follows that the pressure in the middle must be less then on the sides; and therefore the consecution will be the same as in the former. It is very odd to one that considers not the reason of it, to see two floating bodies of wood to approach each other, as though they were indued with some magnetical vigour; which brings into my mind what I formerly tried with a piece of Cork or such like body, which I so ordered, that by putting a little stick into the same water, one part of the said Cork would approach and make toward the stick, whereas another would discede and fly away, nay it would have a kind of verticity, so as that if the *Æquator* (as I may so speak) of the Cork were placed towards the stick, if let alone, it would instantly turn its appropriate Pole toward it, and then run a-tilt at it: and this was done only by taking a dry Cork, and wetting one side of it with one small stroak; for by this means gently putting it upon the water, it would depress the superficies on every side of it that was dry, and therefore the greatest pressure of the Air, being near those sides caused it either to chase away, or else to fly off from any other floating body, whereas that side only, against which the water ascended, was thereby able to attract.

It remains only, that I should determine how high the Water or other Liquor may by this means be raised in a smaller Pipe above the Superficies of that without it, and at what height it may be sustained: But to determine this, will be exceeding difficult, unless I could certainly know how much of the Airs pressure is taken off by the smallness of such and such a Pipe, and whether it may be wholly taken off, that is, whether there can be a hole or pore so small, into which Air could not at all enter, though water might with its whole force; for were there such, 'tis manifest, that the water might rise in it to some five or six and thirty English Foot high. I know not whether the capillary Pipes in the bodies of small Trees, which we call their *Microscopical pores*, may not be such; and whether the congruity of the sides of the Pore may not yet draw the juyce even

even higher then the Air was able by its bare pressure to sustain it. Congruity is a principle that not only unites and holds it, but, which is more, attracts and draws a body towards it, and holds it above its usual height.

And this is obvious even in a drop of water suspended in a similar or Congruous body: For, besides the ambient Air, which keeps it sustain'd, there is the Congruity of the bodies it is in. This is yet more evident in Tenacious and Glutinous. as Gummos Liquors, Syrups, Pitch, and Rosin mastic, Asphaltum, Bird-lime, &c. for there it is evident of the tenacious body, as I may so call it, do stick together, that though drawn out into long and slender threads, yet they will not easily relinquish one another. And the bodies be *aliquatenus* fluid, and in motion by themselves, yet to such as consider a fluid body only as its parts are united by a similar motion, without taking in also the congruity of the parts to one another, and incongruity to some other bodies, do seem strange. So that besides the incongruity of the ambient Air, we are to consider also the congruity of the parts of the body with another.

And this Congruity (that I may here a little further explain) is a Tenacious and an Attractive power; for the Congruity of the parts, and the attractive motions, may be the cause of all kind of attraction, but Magnetical also, and therefore it may be called a Congruity and Glutinousness. For, from a perfect congruity of the parts, the intermediate fluid particles are driven away from between them, and thereby those bodies are brought by the incompassing mediums, compell'd and forced together, wherefore that attractiveness must needs be stronger, where there is immediate contact, they are forc'd to be exactly the same. As I have at large in my *Theory of the Magnet*. And this hints at the suspension of the *Mercury* many inches, nay many fathoms, in its natural station of 30 inches. For the parts of *Quicksilver* being so similar and congruous to each other, if once united, they will not be a divulsion: And the parts of water, that were any way separated by being by *exantlation* or rarefaction exhausted, the rest being also very similar, will not easily part neither. And the parts of *Quicksilver* being solid, are more difficultly disjoyn'd; and the parts of water, what similar to both, is, as it were, a medium to unite the *Mercury* together. So that all three being united by a similar, by means of this contact, if care be taken, they will not be recting be not shogged, the *Quicksilver* will remain in its natural standing its contrary endeavour of Gravity, a great ordinary Station; but if this immediate Contact be removed, the meer separation of them one from another by the force of the Air, by the other becomes imbodyed between them, and so hurling them makes